

This listing of claims will replace all prior versions in the application.

Claims 1-25. (cancelled)

Claim 26. (currently amended) A positive-acting photoresist composition comprising a photoactive component and a polymer that is substantially free of aromatic groups and comprises 1) units crosslinked to other polymer units and 2) photoacid-labile acrylate groups,

the polymer units being crosslinked by a separate crosslinker component, the crosslinker component being a vinyl ether prior to reaction with the polymer.

Claim 27. (cancelled)

Claim 28. (currently amended) The photoresist of claim 26 wherein the photoacid-labile groups comprise acrylate esters that comprise a tertiary non-cyclic ~~alicyclic~~ group or a secondary or tertiary alicyclic group.

Claim 29. (previously presented) The photoresist composition of claim 27 wherein the photoacid-labile acrylate groups comprise tert-butyl, adamantyl or norbornyl groups.

Claim 30. (previously presented) The photoresist composition of claim 26 wherein the polymer is completely free of aromatic groups.

Claims 31-33. (cancelled)

Claim 34. (currently amended) The photoresist composition of claim ~~26~~ 34 wherein prior to reaction with the polymer the crosslinker component s 1,4-butanedivinylether, 1,6-hexanedivinyl ether, 1,4-cyclohexane dimethanoldivinyl ether or bis-vinylether-ethane ether.

Claim 35. (currently amended) A method for forming a photoresist relief image, comprising:

- a) applying a layer of a positive-acting photoresist composition on a substrate, the photoresist composition comprising a photoactive component and a polymer that is substantially free of aromatic groups and comprises 1) units crosslinked to other polymer units and 2) photoacid-labile acrylate groups, the polymer units being crosslinked by a separate crosslinker component, the crosslinker component being a vinyl ether prior to reaction with the polymer; and
- b) exposing and developing the photoresist layer on the substrate to yield a photoresist relief image; and
- c) chemically etching substrate areas bared of photoresist by development.

Claim 36. (previously presented) The substrate of claim 35 wherein the substrate is a microelectronic wafer.

Claim 37. (previously presented) The method of claim 35 wherein the photoresist layer is exposed to patterned radiation having a wavelength of less than 200 nm.

Claim 38. (previously presented) The method of claim 35 wherein the photoresist layer is exposed to pattered radiation having a wavelength of 193 nm.

Claim 39. (previously presented) The method of claim 35 wherein the photoresist layer is exposed to patterned radiation having a wavelength of 157 nm.

Claim 40. (cancelled)

Claim 41. (currently amended) The method of claim 35 wherein the photoacid-labile groups comprise acrylate esters that comprise a tertiary non-cyclic ~~alicyclic~~ group or a secondary or tertiary alicyclic group.

Claim 42. (previously presented) The method of claim 35 wherein the photoacid-labile acrylate groups comprise tert-butyl, adamantly or norbornyl groups.

Claim 43. (previously presented) The method of claim 26 wherein the polymer is completely free of aromatic groups.

Claims 44-48. (cancelled)

Claim 49. (new) A positive-acting photoresist composition comprising a photoactive component and a polymer that is substantially free of aromatic groups and comprises 1) units crosslinked to other polymer units and 2) photoacid-labile acrylate groups, the polymer units being crosslinked by a separate crosslinker component.